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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/932,687	08/17/2001	Thomas Schulte	MICRO1200	5022

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EXAMINER

DRODGE, JOSEPH W

ART UNIT PAPER NUMBER

1723

DATE MAILED: 01/21/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/932,687

Applicant(s)
SCHULTE ET AL

Examiner
JOSEPH DRODGE

Art Unit
1723



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 26, 2002
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above, claim(s) 15-26 and 32-38 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-31 is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-14 is/are rejected.
- 7) ☒ Claim(s) 11 is/are objected to.
- 8) ☒ Claims 15-26 and 32-38 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Election/Restriction

1. Applicant's election without traverse of claims 1-14 and 27-32 in Paper No. 6 is acknowledged.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

3. Claims 1 and 12-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Pfof et al patent 6,485,690.

Pfof et al disclose a device comprising a well plate 16 and adjacent microfluidic structure

(layer 14 with microchannels 26 and 28 which interconnect a plurality of the wells within such

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well plate in that fluids are delivered simultaneously to the wells through the microchannels (see especially column 5, line 62-column 6, line 21 and column 10, lines 42-47).

Regarding claim 12, see for example column 19, lines 44-46 concerning plural well plates , each having arrays with large numbers of wells.

Regarding claim 13, see column 19, lines 50-56 concerning connecting of at least four wells with each microchannel.

Regarding claim 14, see discussion of plural microfluidic structures in column 16, line 67 through column 17, line 17.

4. *Claims 1-10, 13 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Dubrow et al patent 5,976,336.*

Dubrow et al disclose a substrate plate (see column 11, line 64) that contains an array of wells or reservoirs (column 3, lines 30-44 and column 11, lines 46-64, etc.), hence “well plate” and adjacent or integral microfluidic structures that connect groups of plural wells (see channel structure encompassing channels 372, 304, etc. and associated inlets and outlets).

Regarding claims 2-10, the channel structures shown in figures 3 and 4 and described in columns 9, 10 and 11 constitute “H filters” in that they include multiple inlets and outlets coupled to arrays of plural wells serving as sources of fluid to be analyzed and plural wells functioning as receivers of fluid being analyzed.

Regarding claims 13 and 14, see especially column 11, lines 46-64 concerning gridded arrays of multiple well-connecting microfabricated channel structures.

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Allowable Subject Matter

5. Claim 11 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 11 is deemed to distinguish in view of recitation of a well of the plate having a bottom which is higher than that of at least one other well on such plate. Pfost et al only teach identical wells for each plate.

6. Claims 27-31 are allowed.

Claims 27-31 are deemed to distinguish in view of recitation of a "microfluidic card...card being sized and adapted for contact with the well plate such that at least one port of each circuit is connected to at least one well. Pfost et al instead teach microfluidic channel containing layers which are constructed as discrete layers, not as cards having microcircuits within, as claimed.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Yager et al patent 5,932,200 is representative of the prior art which teaches microfluidic or microfabricated H filter adapted for mixing or solvent extraction processes.


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph W. Drodge whose telephone number is (703) 308-0403. The examiner can normally be reached on Monday-Friday from approximately 8:30 AM - 4:45 PM.

The fax phone number for this Group is (703) 872-9310 or (703) 872-9311 for after final submissions. When filing a FAX in Tech Center 1700, please indicate in the Header (upper right)

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“Official” for papers that are to be entered into the file, and “Unofficial” for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.


Joseph W. Drodge
Primary Examiner
Art Unit 1723

JWD
January 10, 2003